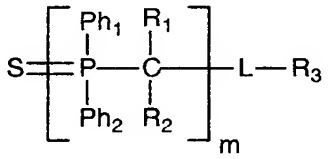
Amendments to the Specification:

Please replace the paragraph beginning on line 15 of page 18 with the following rewritten paragraph:

-- The ultrathin tabular silver halide grains can also be doped using one or more of the conventional metal dopants known for this purpose including those described in *Research Disclosure* item 38957, September, 1996 and U.S. Patent 5,503,970 (Olm et al.), incorporated herein by reference. Preferred dopants include iridium (III or IV) and ruthenium (II or III) salts. Particularly preferred silver halide grains are ultrathin tabular grains containing iridium-doped thiazole ligands. Such ultrathin tabular grains and their method of preparation are described in copending and commonly assigned U.S. Serial No. 10/826,708 (filed on April 16, 2004 by Olm et al.) ~~entitled "Silver Halide Emulsion Containing Iridium Dopant" and having Attorney Docket No. 87569/AJA)~~ that is incorporated herein by reference. --

Please replace the paragraph beginning on line 1 of page 20 with the following rewritten paragraph:

-- Other useful sulfur-containing chemical sensitizing compounds that can be decomposed in an oxidized environment are the diphenylphosphine sulfide compounds represented by the following Structure (PS):



(PS)

wherein Ph_1 and Ph_2 are the same or different phenyl groups, R_1 and R_2 are each independently hydrogen or an alkyl or phenyl group, L is a direct bond or a divalent linking group, m is 1 or 2 and when m is 1, R_3 is a monovalent group and when m is 2, R_3 is a divalent aliphatic linking group having 1 to 20 carbon, nitrogen, oxygen, or sulfur atoms in the chain. Such compounds are described in more detail in copending and commonly assigned U.S.S.N. 10/731,251 (filed December 9, 2003 by Simpson, Burleva, and Sakizadeh), now U.S. Patent Application Publication 2005/0123870, which ~~application~~ is incorporated herein by reference.

Please replace the table on page 33 with the following rewritten table:

Phosphor	Composition	Peak Emission Wavelength (nm)	Structure Type	Mean particle size (microns)
CP-1	$YTaO_4$:Sr	325 nm	M'-$YTaO_4$	4
CP-2	$YTaO_4$:Sr	325 nm	M'-$YTaO_4$	7.5
P-1	$LaPO_4$:Ce	318 nm	Monazite	4.6
P-2	YPO_4:Ce	357 nm	Zircon	10
P-3	SrB_4O_7:Eu,F	371 nm	SrB_4O_7	10
CP-3~~P-4~~	$BaMgAl_{11}O_{19}$:Ce	344 nm	β-Al_2O_3	15
P-5	$Sr_2P_2O_7$:Eu	420 nm	$Sr_2P_2O_7$	11

Please replace the paragraph beginning on line 1 of page 34 with the following rewritten paragraph:

-- Examples of useful phosphors include, but are not limited to, $LaPO_4$:Ce (P-1), YPO_4:Ce (P-2), SrB_4O_7:Eu,F (P-3), ~~$BaMgAl_{11}O_{19}$:Ce (P-4),~~ and $Sr_2P_2O_7$:Eu (P-5). Phosphors P-1 and P-2 are most preferred. --

Please replace the paragraph beginning in line 23 on page 38 with the following rewritten paragraph:

-- Also useful are the phthalazine compounds described in commonly assigned U.S. Patent 6,605,481 (Ramsden et al.), the triazine thione compounds described in U.S. Patent U.S. 6,703,191 (Lynch et al.), and the heterocyclic disulfide compounds described in U.S. Serial No. 10/384,244 (filed March 7, 2003 by Lynch and Ulrich), now U.S. Patent 6,737,227, all of which are incorporated herein by reference. --

Please replace the paragraph beginning in line 21 on page 43 with the following rewritten paragraph:

-- Layers to reduce emissions from the film may also be present, including the polymeric barrier layers described in U.S. Patent 6,352,819 (Kenney et al.), U.S. Patent 6,352,820 (Bauer et al.), and U.S. Patent 6,420,102 (Bauer et al.), and U.S. Patent 6,667,148 (Rao et al.), and copending and commonly assigned U.S. Serial No. 10/351,814 (filed January 27, 2003 by Hunt), now U.S. Patent 6,746,831 (Hunt), all incorporated herein by reference. --

Please replace page 67 with the following rewritten page 67:

-- Example 4 – Alternate Phosphors P-3, CP-3 ~~P-4~~, and P-5 Used in Photothermographic Materials

Photothermographic materials were prepared as described in Example 3 except that 1.82 g of Antifoggant AF-A was used and no citric acid was added to the photothermographic emulsion formulation, and the photothermographic topcoat formulation used is described in Example 1. To 25 g of the photothermographic emulsions was added 20.2 g of $YSrTaO_4$ (CP-1) phosphor, SrB_4O_7:Eu,F (P-3) phosphor, $BaMgAl_{11}O_{19}$:Ce (CP-3 ~~P-4~~) or $Sr_2P_2O_7$:Eu (P-5). The materials were mixed for an additional 5 minutes to prepare the final photothermographic coating formulations. Photothermographic materials were imaged and developed as described in Example 1.

These solutions were coated to similar phosphor coating weights approximately from 88 to 91 g/m^2. The sensitometric results, shown below in TABLE VII demonstrate that CP-1 and P-5 have similar speed, but lower contrast when these compounds are formulated with a standard emulsion formulation. An increase in Dmin was observed with P-5. There was some loss in speed and contrast with P-3, but the Dmin was decreased compared to P-1. Phosphor CP-3 ~~P-4~~ showed similar speed, but higher Dmin and low contrast.

TABLE VII

Example	Phosphor	Dmin	SP-2	AC-2
4-1	CP-1	1.13	4.27	4.35
4-2	P-3	0.81	4.08	3.62
4-3	~~P-4~~ CP-3	1.35	4.28	0.93
4-4	P-5	1.20	4.22	3.16

--

Please replace the paragraph beginning in line 5 on page 68 with the following rewritten paragraph:

-- The density of these samples were measured with an X-rite 310 densitometer using the Status A filters and measured with the visible filter. The sensitometric results, shown below in TABLE VIII, demonstrate sensitivity to X-rays for the P-3, CP-3 ~~P-4~~ and P-5 phosphors. --

Please replace TABLE VIII on page 69 with the following rewritten TABLE VIII:

-- TABLE VIII

Example	**Phosphor**	**(Developed Density – Dmin) at 0.8 sec**	**(Developed Density – Dmin) at 1.5 sec**
4-1	CP-1	3.67	4.19
4-2	P-3	0.12	0.23
4-3	~~P-4~~ CP-3	0.31	0.62
4-4	P-5	0.57	1.08

--

Please replace the paragraph beginning in line 4 on page 70 with the following rewritten paragraph:

-- An ultrathin tabular grain silver halide emulsion was prepared as described below and in copending and commonly assigned U.S. Serial No. 10/826,708 (Olm et al~~, noted above having Attorney Docket No. 87569/AJA~~). --

Please replace the paragraph beginning in line 22 on page 72 with the following rewritten paragraph:

-- To this aqueous photothermographic formulation was added 12 g of phosphor particles CP-1, CP-2, or P-1, P-2, CP-3, P-3, or ~~to~~ P-5, and mixed for 30 seconds. Control formulations were also prepared without phosphor particles. --

Please replace the paragraph beginning in line 5 on page 73 and TABLE IX with the following rewritten paragraph and TABLE IX:

-- As shown in TABLE IX below, the sensitometric results demonstrates that materials incorporating phosphors P-2, CP-3 ~~P-4~~, and P-5 have similar speed SP-2 when these compounds are compared to phosphor CP-2. Phosphors P-1 and P-3 have slower SP-2. An increase in Dmin was observed with phosphors P-3, CP-3 ~~P-4~~, and P-5.

TABLE IX

Example	**Phosphor**	**Dmin**	**Dmax**	**SP-2**
5-1	CP-1	0.63	2.68	5.07
5-2	CP-2	0.62	2.05	4.84
5-3	P-1	0.60	2.78	4.54
5-4	P-2	0.61	2.51	4.78
5-5	P-3	0.68	2.26	4.56
5-6	CP-3 ~~P-4~~	0.74	2.18	4.82
5-7	P-5	0.85	2.96	4.84

--

Please replace the paragraph beginning in line 3 on page 74 with the following rewritten paragraph:

-- The density of these samples were measured with an X-rite 310 densitometer using the Status A filters and measured with the visible filter. The sensitometric results, shown below in TABLE X, demonstrate sensitivity to X-rays for the P-1, P-2, P-3, CP-3, and ~~to~~ P-5 phosphors. Similar or faster X-ray response as compared to the KODAK ULTRASPEED® material was observed with phosphors P-1, P-2, or P-5. --

Please replace TABLE X on page 75 with the following rewritten TABLE X:

-- TABLE X

Example	**Phosphor**	**(Developed Density – Dmin) at 0.05 sec**	**(Developed Density – Dmin) at 0.1 sec**	**(Developed Density – Dmin) at 0.2 sec**
5-0	None	0.02	0.05	0.09
5-1	CP-1	1.59	1.70	1.81
5-2	CP-2	1.24	1.40	1.60
5-3	P-1	0.35	0.71	1.13
5-4	P-2	0.66	0.97	1.23
5-5	P-3	0.00	0.30	0.61
5-6	CP-3 ~~P-4~~	0.00	0.20	0.64
5-7	P-5	0.95	1.27	1.40
5-8	ULTRASPEED®	0.44	0.96	1.73

Please replace page 76 with the following rewritten page 76:

-- Example 6 – Aqueous-Based Photothermographic Materials

Formulations were prepared in a similar manner as described in Example 5 except to 25 g aliquots of the emulsion formulation was added 15 g of the phosphor particles P-1, P-2, P-3, CP-3, or ~~to~~ P-5, and mixed for 30 seconds. The phosphor-containing formulations were coated at approximate phosphor coating weights of 91 g/m^2 to 107 g/m^2. Samples of these photothermographic materials were exposed, imaged, and processed as described in Example 5.

The sensitometric results, shown below in TABLE XI, demonstrate that phosphors P-2, CP-3 ~~P-4~~, and P-5 have similar speed (SP-2) and are faster than phosphors P-1 and P-3. Materials incorporating phosphors CP-3 ~~P-4~~ and P-5 had a higher Dmin.

TABLE XI

Example	Phosphor	Dmin	Dmax	SP-2
6-1	P-1	0.64	3.32	4.72
6-2	P-2	0.75	3.04	4.76
6-3	P-3	0.75	2.78	4.65
6-4	CP-3 ~~P-4~~	0.93	2.68	4.79
6-5	P-5	1.18	3.58	4.81

The X-ray sensitometric responses of these photothermographic materials and the comparative KODAK ULTRASPEED® photographic material were determined in a similar manner as described in Example 5. The sensitometric results, shown below in TABLE XII, demonstrate sensitivity to X-rays for phosphors P-1, P-2, P-3, CP-3, or ~~to~~ P-5. Faster X-ray response as compared to the KODAK ULTRASPEED® material was observed with phosphors P-1, P-2, and P-5. --

Please replace TABLE XII on page 77 with the following rewritten page TABLE XII:

-- TABLE XII

Example	**Phosphor**	**(Developed Density – Dmin) at 0.05 sec**	**(Developed Density – Dmin) at 0.1 sec**	**(Developed Density – Dmin) at 0.2 sec**
6-0	None	0.02	0.05	0.09
6-1	P-1	0.82	1.26	1.63
6-2	P-2	1.12	1.52	1.70
6-3	P-3	0.26	0.43	0.82
6-4	CP-3 ~~P-4~~	0.14	0.36	0.62
6-5	P-5	1.03	1.33	1.58
6-6	ULTRASPEED®	0.44	0.96	1.73

--

Please replace lines 8 in and to the end of page 79 with the following new lines:

-- To this aqueous photothermographic formulation was added 12 g of phosphor particles CP-1, or phosphors P-1, P-2, P-3, CP-3, or ~~to~~ P-5, and mixed for 30 seconds. Control formulations were prepared without phosphor particles. The phosphor-containing formulations were coated at approximate phosphor coating weights of 68 g/m^2 to 77 g/m^2. Samples of these photothermographic materials were exposed and imaged as described above, but processed for 25 seconds at 150.0°C.

As shown in TABLE XIII below, the sensitometric results demonstrate that all P-1, P-2, P-3, CP-3, and ~~through~~ P-5 have slower speed (SP-2) when these compounds are compared to CP-1. An increase in Dmin was observed with phosphors CP-3 [[P-4]] and P-5.

TABLE XIII

Example	Phosphor	Dmin	Dmax	SP-2
7-1	CP-1	0.85	2.82	5.00
7-2	P-1	0.74	2.94	4.45
7-3	P-2	0.81	2.79	4.48
7-4	P-3	0.76	2.18	4.08
7-5	CP-3 [[P-4]]	1.90	2.49	–
7-6	P-5	1.55	2.94	3.96

--

Please replace the paragraph beginning in line 11 on page 80 with the following rewritten paragraph:

-- The density of these samples were measured with an X-rite 310 densitometer using the Status A filters and measured with the visible filter. The

sensitometric results, shown below in TABLE XIV, demonstrate sensitivity to X-rays for phosphors P-1, P-2, P-3, CP-3, and ~~to~~ P-5. The fastest X-ray response was observed with phosphors P-1, P-2, or P-5. --

Please replace TABLE XIV on page 81 with the following rewritten TABLE XIV:

-- TABLE XIV

Example	**Phosphor**	**(Developed Density –Dmin) at 0.05 sec**	**(Developed Density – Dmin) at 0.1 sec**	**(Developed Density – Dmin) at 0.2 sec**
7-0	None	0.03	0.05	0.11
7-1	CP-1	1.89	2.17	2.25
7-2	P-1	0.19	0.65	1.03
7-3	P-2	0.50	0.58	0.97
7-4	P-3	0.00	0.30	0.40
7-5	CP-3 ~~P-4~~	0.23	0.36	0.40
7-6	P-5	0.47	0.74	0.97
7-7	ULTRASPEED®	0.44	0.96	1.73

--

Please replace page 82 with the following rewritten page 82:

-- **Example 8 – Aqueous-Based Photothermographic Materials.**

Formulations were prepared in a manner to that described in Example 7 except to 25 g aliquots of the emulsion formulation was added 15 g of phosphor particles P-1, P-2, P-3, CP-3, or ~~to~~ P-5, and mixed for 30 seconds. The phosphor-containing formulations were coated at approximate phosphor coating weights of from 101 g/m^2 to 108 g/m^2. Samples of these photothermographic materials were exposed, imaged, and developed as described in Example 7.

The sensitometric results, shown below in TABLE XV, demonstrate that phosphors P-2 and P-3 have similar speed (SP-2) and are faster than phosphors CP-3 [[P-4]] and P-5. An increase in Dmin was observed with phosphors CP-3 [[P-4]] and P-5.

TABLE XV

Example	Phosphor	Dmin	Dmax	SP-2
8-1	P-1	0.93	3.47	4.47
8-2	P-2	1.16	3.15	4.40
8-3	P-3	0.88	2.87	4.38
8-4	CP-3 [[P-4]]	2.87	3.27	
8-5	P-5	1.74	3.64	4.28

The X-ray sensitometric responses of these photothermographic materials and the comparative KODAK ULTRASPEED® photographic material were determined in a similar manner as described in Example 5. The sensitometric results, shown below in TABLE XVI, demonstrate sensitivity to X-rays for phosphors P-1, P-2, P-3, CP-3, and ~~to~~ P-5. Faster or similar X-ray response as compared to the KODAK ULTRASPEED® material was observed with phosphors P-1, P-2, and P-5. --

Please replace TABLE XVI on page 83 with the following rewritten TABLE XVI:

-- TABLE XVI

Example	**Phosphor**	**(Developed Density – Dmin) at 0.05 sec**	**(Developed Density – Dmin) at 0.1 sec**	**(Developed Density – Dmin) at 0.2 sec**
8-0	None	0.03	0.05	0.11
8-1	P-1	0.49	0.94	1.38
8-2	P-2	0.79	1.20	1.47
8-3	P-3	0.21	0.44	0.71
8-4	CP-3 ~~P-4~~	0.27	0.27	0.33
8-5	P-5	0.70	1.14	1.29
8-6	ULTRASPEED®	0.44	0.96	1.73

--